

FIG. 1 PRODUCT CYCLE

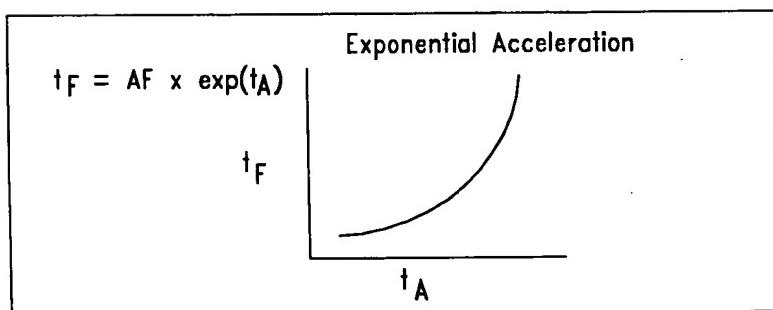
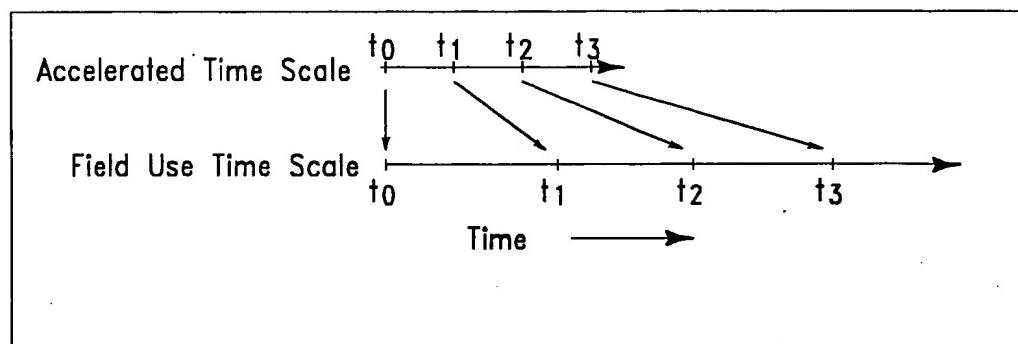


FIG. 2 Exponential Acceleration



Correlation between Accelerated and Field Use Time Scales

FIG. 3

<u>Unit A</u>	CSS	HSS	RT	Vib	CE	Average Time to Failure	λ
HALT 1 First Failure (time to failure in hours)	2	1.35	0.23	0.88	0.925	1.077	0.929
HALT 2 First Failure (time to failure in hours)	1.525	1.51	1.05	1.38	1.45	1.383	0.723

 \bar{R}^* (see eq. 6) 0.306

\bar{R} (see eq. 7)	1.36	ESTIMATE FOR RELATIVE LIFE R
-----------------------	------	------------------------------

BOM MTBF 298462

MTBF for Redesigned Unit 405908
(see eq. 12)VAR (\bar{R}^*) = 0.61490% Confidence Limits for \bar{R}^*
(see eq. 10)Lower Limit -0.98
Upper Limit 1.5990% Confidence Limits for R
(see eq. 11)Lower Limit 0.374
Upper Limit 4.9000

FIG. 4

<u>Unit B</u>	CSS	HSS	RT	Vib	CE	Average Time to Failure	λ
HALT 1 First Failure (time to failure in hours)	1.23	1.38	1.38	1.48	0.18	1.13	.88
HALT 2 First Failure (time to failure in hours)	2.03	1.38	.225	1.83	.225	1.14	.88

 \bar{R}^* (see eq. 6) 0.0

\bar{R} (see eq. 7)	1.0 ← ESTIMATE FOR RELATIVE LIFE R
-----------------------	------------------------------------

BOM MTBF 232000

MTBF for Redesigned Unit 232000
(see eq. 12)VAR (\bar{R}^*)= 0.51690% Confidence Limits for \bar{R}^* (see eq. 10) Lower Limit -1.18
Upper Limit 1.18

90% Confidence Limits for R

(see eq. 11) Lower Limit 0.306
Upper Limit 3.250

FIG. 5

<u>Unit C</u>	CSS	HSS	RT	Vib	CE	Average Time to Failure	λ
HALT 1 First Failure (time to failure in hours)	1.48	1.20	0.55	1.22	0.81	1.05	0.95
HALT 2 First Failure (time to failure in hours)	1.87	1.30	1.67	1.06	0.33	1.25	0.80

 \bar{R}^* (see eq. 6) 0.20

\bar{R} (see eq. 7)	1.22 ← ESTIMATE FOR RELATIVE LIFE R
-----------------------	-------------------------------------

BOM MTBF 363300

MTBF for Redesigned Unit 443226
(see eq. 12)VAR (\bar{R}^*)= 0.5390% Confidence Limits for \bar{R}^* (see eq. 10) Lower Limit -.99
Upper Limit 1.39

90% Confidence Limits for R

(see eq. 11) Lower Limit 0.368
Upper Limit 4.010

FIG. 6